Via Punica 34 and Joan Planells

VI JORNADES D'ARQUEOLOGIA DE LES ILLES BALEARS

FORMENTERA

(26 A 28 DE SETEMBRE DE 2014)

VI Jornades d'Arqueologia de les Illes Balears

(Formentera, 26, 27 i 28 de setembre, 2014)

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Consell Insular de Formentera

Col·legi Oficial de Doctors
i Llicenciats en Filosofia i Lletres
i en Ciències de les Illes Balears
Secció d'Arqueologia

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PRESENTACIÓ

Els dies 26, 27 i 28 de setembre de 2014 la Sala de Cultura de Formentera va acollir un acte de primer ordre en el camp de la recerca arqueològica a la nostra comunitat autònoma: les VI Jornades d'Arqueologia de les Illes Balears. Aquest congrés bianual, organitzat per la Secció d'Arqueologia del Col·legi Oficial de Doctors i Llicenciats en Filosofia i Lletres i en Ciències de les Illes Balears, arribava així, per primera vegada des del seu inici l'any 2006, a Formentera.

De les cinquanta-set comunicacions previstes en el programa, quatre derivaven directament d'intervencions portades a terme a Formentera. En aquesta illa, l'aprovació de la revisió de les Normes subsidiàries i del Catàleg del patrimoni cultural, el 30 de setembre de 2010, va suposar un abans i un després en la documentació i l'estudi del territori des del punt de vista del patrimoni arqueològic, amb l'adopció d'un protocol per a la realització d'intervencions preventives davant qualsevol indici de resta arqueològica, tant en sòl urbà com, sobretot, en sòl rústic. A més a més, també s'han de tenir en compte els tres projectes de recerca arqueològica –tramitats com a intervencions programades– que s'han autoritzat des de 2012 i que avui per avui encara es troben en desenvolupament, dos d'ells centrats en la prehistòria i un en l'època romana.

La Llei 12/1998, de 21 de desembre, del patrimoni històric de les Illes Balears, incideix no només en la protecció i en la conservació del patrimoni cultural, sinó també, en la investigació i en la difusió. Certament, la recerca i la transmissió del coneixement són dos esglaons indispensables per poder posar en valor el patrimoni històric, sense els quals la protecció i la conservació no tendrien cap sentit. Per aquest motiu, quan la Secció d'Arqueologia del Col·legi va plantejar al Consell Insular de Formentera la proposta de realitzar-hi les VI Jornades, des d'aquesta administració no només es va valorar com una opció, sinó gairebé com una obligació, entenent que es contribuiria a organitzar un fòrum científic de notable rellevància, encaminat a difondre els resultats de les darreres recerques en arqueologia desenvolupades arreu dels territoris que conformen les Illes Balears.

La publicació de les comunicacions presentades durant les VI Jornades, recollides per escrit en aquest volum en el qual també col·labora econòmicament el Consell Insular de Formentera, constitueixen una altra via per contribuir a la difusió del coneixement científic del patrimoni arqueològic de les nostres illes i, en definitiva, a aproximar-lo més a la ciutadania perquè pugui apreciar el seu valor com a testimoni del nostre passat.

Àrea de Cultura i Patrimoni
del Consell Insular de Formentera

PRÒLEG

És tot un plaer poder presentar aquesta publicació com un recull dels articles presentats a les VI Jornades d'Arqueologia de les Illes Balears duites a terme a l'illa de Formentera durant els dies 27, 28 i 29 de setembre de l'any 2014, fruit de la reunió d'un nombrós i actiu conjunt de professionals del món de l'arqueologia vinguts de totes les Illes Balears, de diversos punts de la península i també de diferents Universitats d'Europa.

La Secció d'Arqueologia del Col·legi Oficial de Doctors i Llicenciats en Filosofia i Lletres i en Ciències de les Illes Balears, qui té la responsabilitat i el plaer d'organitzar aquestes jornades d'arqueologia autonòmiques amb caràcter biennal, ha contat aquest any amb el recolzament econòmic i una magnífica predisposició en tots els aspectes del Consell de Formentera, a qui volem donar les gràcies per l'ajuda prestada, la seva col·laboració i, sobretot, per obrir les portes de la seva illa a un projecte com aquest, que intenta consolidar les bases per a posar en comú la tasca arqueològica i la difusió en favor d'una creixent i acurada professionalització de l'arqueologia. Formentera ens ha envoltat com a un marc idoni per exposar els estudis més adients i actuals de l'arqueologia de les nostres illes que conformen l'arxipèlag Balear.

La present publicació ha estat possible gràcies a la voluntat, entusiasme i esforç d'un conjunt de persones que han oferit amb il·lusió el seu temps i tots els recursos disponibles al seu abast. Les jornades i la publicació de les seves actes s'han materialitzat baix la coordinació de les sotasignants en representació de la Secció d'Arqueologia i de Jaume Escandell, en representació de l'Àrea de Patrimoni del Consell de Formentera. Però si des de les primeres Jornades realitzades a Manacor (Mallorca) l'any 2006 impulsades per l'arqueòloga municipal Magdalena Salas, hem arribat fins el dia d'avui ha estat també gràcies a l'empenta donada per tots els seus assistents i, en especial, als seus participants qui ofereixen els resultats de les seves investigacions per tal de fomentar la molt necessària tasca de difusió del nostre patrimoni arqueològic. A aquelles primeres jornades que semblen quedar llunyanes es va iniciar un aventura amb 12 comunicacions, a les II Jornades diutes a terme a Felanitx es va augmentar la participació fins a 16 comunicacions, seguides per les III Jornades realitzades a Maó on es varen presentar 23, a les IV Jornades celebrades a Eivissa el nombre de comunicacions va arribar fins a 36 i finalment a les V Jornades celebrades a Palma el 2010 es varen presentar 44 comunicacions amb un èxit de participació mai vist a les anteriors que arribava fins als 90 autors. L'augment paulatí i consecutiu de participació d'unes jornades a les següents és un clar èxit que ens ha conduit fins a les presents.

Actualment hem contat amb la participació de 99 autors que varen presentar 55 comunicacions a Formentera, d'entre les quals s'han presentat per a formar part de la publicació de les Actes un total de 45 articles que engloben des de la prehistòria fins als nostres dies amb temàtiques que inclouen projectes d'excavacions programades, intervencions d'urgència, estudis metodològics, restauració i projectes de difusió. A tots ells, gràcies per la feina i dedicació demostrada, i gràcies també als coordinadors predecessors per donar les primeres passes que obrien el camí que avui podem continuar desitjant que sigui llarg a fi de poder fomentar l'interès per l'arqueologia, lluitar per una professió digna i de qualitat i potenciar el respecte pel patrimoni arqueològic que ens envolta com a llegat històric i cultural dels nostres antecessors.

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SUMARI

VÍA PÚNICA 34 AND JOAN PLANELLS: DEMOGRAPHIC STUDY OF TWO CEMETERY POPULATIONS FROM IBIZA

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ABSTRACT

The anthropological information about past populations allows interpreting the past better and helps to understand biological aspects of the present populations. In this study, the demographics of two Roman archaeological populations from Ibiza are presented. Standard osteological methods are used to assess the populations' biological profile. Sex and age assessment, stature and pathologies and traumatic lesions are reported. The analysis of cranial, postcranial and dental non-metrics traits skeleton is also undertaken. Overall, this provides valuable information about the Roman population from 1st to 7th centuries in the island.

Key notes: Ibiza, demographics, Romans, Early Christians.

INTRODUCTION

The city of Ibiza is known for its Phoenician-Punic name in the Latin version "Ebusus" (in honour of the god Bes). The old town of the city is well preserved and now, the different reconstructions and modifications carried out by the different historic settlers can be appreciated in the modern urban area.

The most important parts of the Roman city were: the acropolis; the main neighbourhood; the neighbourhood close to the harbour; and finally, the area where the necropolises being studied have been found. This part of the city has presented some problems during its archaeological study because of the modern urbanization in the zone.

The human remains under analysis were found in Vía Púnica and Joan Planells streets. Both sites have been excavated by emergency excavation due to construction. By Spanish law, it is the responsibility of the construction company to notify archaeologists to manage the site if remains or artefacts are found. Both sites present different chronologies (table 1).

SITE	PERIOD	CONTEXT	AUTHORS	EXCAVATION YEAR
Via Púnica 34	1st-3rd century	Eivissa	Llinás et al. (2009)	2008
Joan Planells	3-7th century	Eivissa	Esquembre et al. (2005)	2003

Table 1. Information about the archaeological sites.

Llinás et al. (2009) were brought in to excavate the Vía Púnica-34 site in 2008 in the terrain of Can Partit. The area was earlier occupied by the Punics and it has been associated with other activities, but our interest is focused on the human remains and their context. Burials from the 1st and 3rd centuries A.D. were discovered. According to archaeological evidence, the necropolis was placed outside the limits of the city wall, supporting the Roman tradition of burying outside the urban area and next to the edges of the main entryways into the city. The old structures built in the last epochs were transformed and most of them lost, apart from an avenue that was built by the Punics and was still in use during the 4th century. A cistern for supplying water was discovered and this lead to the dating of the site as Roman. A total of 51 individuals were found in this necropolis, all of which were buried in graves oriented north-south, apart from six which had another orientation. The burials were mostly individual cist graves, apart from four containing commingled bones and a few of them containing teeth from other individuals. The skeletons were all found in a supine position except one that was found in lateral position. Some graves were identified as second burials where the first individual was moved leaving space for the next

one. This tradition has been documented in other graveyards during the 4th and 5th centuries A.D. in Ibiza and around the Iberian Peninsula, and shows that the necropolis would have been used for a long period.

Esquembre et al. (2005) provided information about the second site. Joan Planells-03 is located between Joan Planells and Vía Púnica streets (Ibiza city) to the north of one of the most important necropolises of the island, Puig des Molins. The graveyard is situated approximately 200 meters outside to the west of the historical medieval wall and the main-door of the old town. The southern area of the site had well-delineated structures (rooms), while the northern area could have been an area for public activities. A pavement indicating an original street or a possible square was found. The remains of a monumental wall which ran from east to west dividing the site into two sectors were also found. Some evidence such as Punic inscriptions suggests that the terrain was already occupied at that time. The urban sector would have been abandoned in the 4th century before becoming a graveyard. The necropolis dates from the Late Roman period and was found under other modern structures. The funerary structures found presented different types of burials (single pits, cists, *tegulae* burials) and individual and multiple inhumations have been documented. A total of seventy-four individuals have been identified in this necropolis. In the north-east sector of the site, some graves were better preserved than the rest of the site, and although all burials had grave goods these ones were more refined. Some of the objects suggest that the cemetery was in use from the Late Antiquity until the end of the Byzantine period, from the 3th to 7th century A.D.

MATERIAL AND METHODS

The material under study was recorded by a group of PG students from the University of Edinburgh in 2011 according to the protocol established by the Edinburgh Unit for Forensic Anthropology (EUFA) fieldwork team which is a compilation of the methodologies explained during this section. Once the minimum number of individuals (MNI) was determined (Adams and Konigsberg 2004), each skeleton was examined applying the standard osteological techniques mentioned below. Occasionally, due to the state of preservation, taphonomy, and recovery of the material, the full biological profile could not be reconstructed for some individuals.

State of preservation and completeness of the two populations:

The two cemetery populations presented differences in the state of preservation of the inhumations.

The completeness of each skeleton was assessed using a scoring system from 1 to 4 according to the following criteria; 1 over 75%, 2 from 50 to 75%, 3 from 25 to 50% and 4 under 25%.

The preservation of the Via Púnica 34 human remains resulted in 21% of individuals scoring over 75% for completeness and 34% scoring under 25%. The completeness of Joan Planells consisted of 11% of the individuals scoring over 75% and 65% of the individuals scoring under 25%. It is clear from the data that the remains from Vía Púnica 34 are better preserved than the ones from Joan Planells (figure 1).

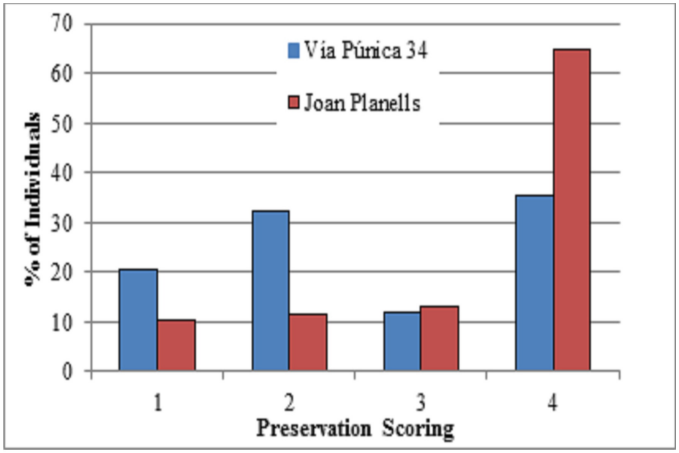

Figure 1. State of preservation of the two cemetery populations.

Of the fifty-one individuals examined in Vía Púnica 34, thirty-nine individuals had both dental and skeletal data, eight individuals produced only skeletal data and just four individuals had only dental data.

The Joan Planells population had thirty-eight individuals presenting dental and skeletal data, thirty-two individuals just provided skeletal data and no individuals were represented by

just dental data. In some cases, commingling between or within contexts occurred.

Sex estimation

The traditional widespread techniques used for sexing are those that use the visual inspection of sexually dimorphic features of the skeleton. The more reliable methods are based on sexual differences of the pelvic girdle (Krogman and İşcan 1986). The skeletal features include the assessment of the overall shape of the pelvic girdle -although this feature was rarely observed due to the state of preservation of the remains; the Phenice method (Phenice 1969), preauricular sulcus presence or absence, and the morphology of the greater sciatic notch and obturator foramen were also recorded (Buikstra and Ubelaker 1994). The ischiopubic index was calculated when possible (Buikstra and Ubelaker 1994). In combination with the pelvis, the skull was also assessed based on general size, shape and robusticity of sexually dimorphic traits (Buikstra and Ubelaker 1994). Statistical computational procedures such as discriminant function analysis were also carried out for sexing (Fisher 1930).

The technique allows classification of unknown individuals as male or female based on measurements. For this paper, discriminant function analysis was carried out only using long bone measurements due to the fragmentary nature of the remains. Posterior probability of sex estimation over 80% were considered fairly accurate.

Using the aforementioned techniques, sex estimation was possible for twenty-nine individuals from Vía Púnica 34 cemetery of which thirteen were male and sixteen were female, with twenty-two individuals remaining unsexed (43% of the total population). Joan Planells had twenty-five individuals for which sex estimation was possible, consisting of eleven males and fourteen females with only four individuals remaining unsexed (14% of the total population) (Figure 2).

Age estimation

The methods used for age estimation are the general techniques used for anthropological analysis using the macroscopic observation of skeletal and dental development stages and age degenerative changes.

Skeletal maturation processes are commonly used for estimating age at death and differentiating between sub-adults and adults (McKern and Stewart, 1957). In most cases, full skeletal maturity is reached around 30 years old with the obliteration of the medial clavicular epiphysis (White and Folkens, 2005). The maturation processes occur, at least for younger individuals, at a relatively established rate independent of chronology or population. With respect to dental formation and eruption, the standard methodologies depicted by Hillson (1996, 2005), Gustafson and Koch (1974) and Ubelaker (1989) are used.

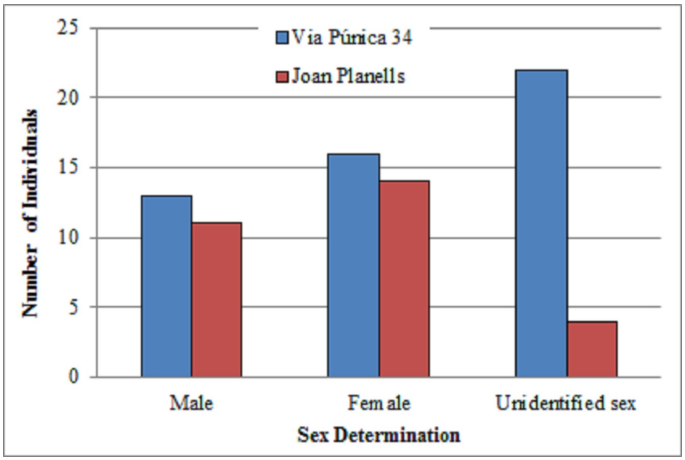

Figure 2. Sex distribution for Joan Planells and Vía Púnica 34

After a certain age, other techniques based on degenerative changes of the human skeleton can be used to estimate age at death. For this approach, the skeletons were subjected to the observation of aging processes on the auricular surfaces, pubic symphysis, cranial sutures and the dentition. The pubic symphyseal surface changes according to both Todd (1920) and Brooks and Suchey (1990) and pre-auricular surface changes according to Lovejoy et al (1985) were recorded. Cranial suture closure, which is based on the degree of obliteration of the sutures of the skull (Todd and Lyon, 1924, Meindl and Lovejoy 1985) was assessed when the crania were well preserved. Although it was rare to find and identify the 4th rib for assessment of the sternal end,

when possible its morphology – scored on both sides - was assessed following the standards of İşcan and Loth (1984, 1985). Dental attrition of the molars was also analysed following the definitions of Brothwell (1981) and Mays (1998). It must be acknowledged that preservation, pathology and environmental factors may have affected the accuracy of the estimations. For juvenile remains, epiphyseal fusion and ossification standards were assessed following Scheuer and Black (2000). Foetal individuals were aged through long bone measurements by comparison with standard lengths (Scheuer and Black 2000, Fazekas and Kósa 1978). Once all the features were assessed, a decision of the age or age range for each individual was made using the protocol established by the Edinburgh Unit for Forensic Anthropology (EUFA) fieldwork team.

The Vía Púnica 34 population was determined to consist of a total of fifty-one individuals, of which five were sub-adults and the remaining individuals were adults. Among the sub-adult group, four individuals ranged from 2 to 7 years old and one was estimated to be over 14 years old. The adult group consisted of a total of forty-three individuals, with twenty-eight individuals ranging from 17 to 25 years old, five individuals from 25 to 35 years old and five individuals from 35 to 45 years old. The remaining five adult individuals were not assigned an age range due to poor preservation which made the application of ageing methods impossible; therefore these specimens were recorded simply as adult-unknown age (Figure 3). The last 3 individuals were too fragmentary to be given any estimations of age.

According to the remains recovered, the Joan Planells population consisted of a total of seventy four individuals of which seven were sub-adults and thirty-eight were adults. For the remaining individuals, age was not assessed due to the fragmented nature of the remains. Of the sub-adults, one individual ranged from 0 to 2 years old, three individuals were aged from 2 to 7 years old and three individuals were aged less than 14 years old. The adult group consisted of eighteen individuals ranging from 17 to 25 years old, ten individuals ranging from 25 to 35 years old and six individuals ranging from 35 to 45 years old; only four individuals were not assigned an age range and so were recorded as adults - unknown age (Figure 3).

Stature

The estimation of stature was possible only on five individuals due to the fragmentary nature of the remains and the measurements available for calculation (Trotter 1970). The average for male height was 167.22 cm and the female height average was 159.77 cm.

Pathology

Each skeletal element was examined for evidence of pathological alterations according to Buikstra and Ubelaker (1994) and Ortner (2003).

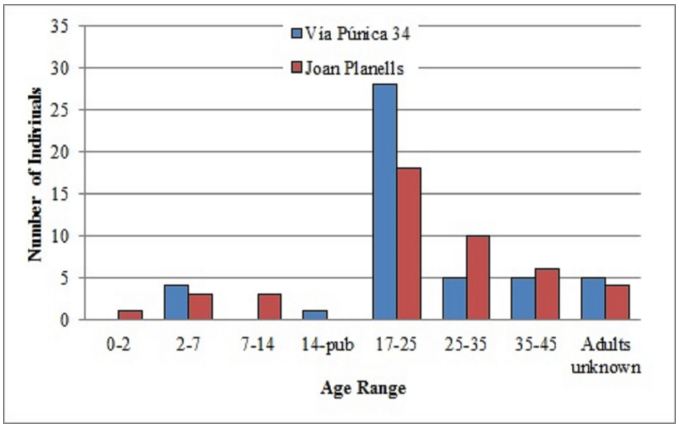

Figure 3. Age distribution for Vía Púnica 34 and Joan Planells.

Prior to any form of diagnosis, a full description was made of any bone with apparent pathologies, such as abnormality of shape, size, bone loss (erosion) or formation (remodelling). Based on Ortner (2003) a broad range of disease categories which can potentially affect the skeleton are available. In this study, we encountered the following categories: degenerative bone disease, Schmorl's nodes, metabolic disease, congenital disease, periostitis, trauma and others. A more detailed analysis of our observations is a subject of a different study. Table 2 shows the frequency of pathological conditions on the two archaeological populations as analysed by Kyriakou (2015). As observed, Joan Planells (table 2.2) presents higher frequencies in all pathological indicators with the exception of two conditions (Schmorl's nodes and metabolic disease).

Table 2.1: Pathology type and prevalence in Vía Púnica 34 *Frequencies are based on individual values*									
	Males	Females	Undetermined	Total		Males	Females	Undetermined	Total
Pathology	No.	%	No.	%	No.	%	No.	%	Pathology
Degenerative Joint Disease	4	10.0	2	5.0	1	2.50	7	17.5	Degenerative Joint Disease
Schmorl's Nodes	3	12.0	4	16.0	0	0	7	18.0	Schmorl's Nodes
Metabolic	0	0	1	2.38	1	2.38	2	4.76	Metabolic
Congenital	0	0	0	0	0	0	0	0	Congenital
Periostitis	0	0	0	0	0	0	0	0	Periostitis
Trauma	1	2.38	1	2.38	0	0	2	4.76	Trauma

Table 2.2: Pathology type and prevalence in Joan Planells *Frequencies are based on individual values*								
	Males	Females	Undetermined	Total		Males	Females	Undetermined
Pathology	No.	%	No.	%	No.	%	No.	%
Degenerative Joint Disease	4	7.02	6	10.53	6	10.53	16	28.07
Schmorl's Nodes	1	3.7	2	7.41	1	3.7	4	14.81
Metabolic	1	1.64	0	0	1	1.64	2	3.28
Congenital	1	1.64	1	1.64	1	1.64	3	4.92
Periostitis	2	3.17	2	3.17	2	3.17	6	9.52
Trauma	5	7.69	4	6.15	3	4.62	12	18.46
Arachnoid Granulation	2	4.65	0	0	3	6.98	5	11.63
Other	0	0	0	0	4	6.15	4	6.15

Table 2. Pathological disorders distribution between the two populations. (Adopted from Kyriakou 2015)

Dental pathologies were found. The prevalence and types recorded were very similar to each other and other populations studied on the island. Caries, calculus, abscesses and hyperplasia were all found. The specifics of these will be published in a later paper.

Non-metric Traits

The frequency of skeletal non-metric traits was very low. The only trait present in both Vía Púnica 34 and Joan Planells was the septal aperture which was only observed in a total of four individuals across both populations.

The appearance of dental non metric traits was recorded as present or absent, the degree of expression of the traits was not taken into account. For more information about these traits refer to Girdwood *et al*. in this monograph. For this paper the traits have been grouped into categories and the overall frequency for each population are shown. As can be seen in Figure 4, some traits had a much higher frequency in one population than in the other, as for example shovelling, although the majority of traits had very similar frequencies in both populations.

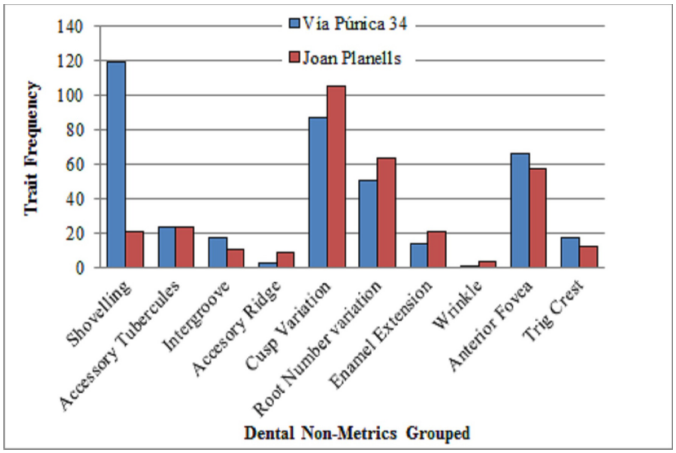

Figure 4. Dental Non-Metric frequency in Vía Púnica 34 and Joan Planells.

Stable Isotopes and diet

Stable isotope signatures were obtained and analysed in an attempt to analyse dietary patterns in Vía Púnica 34 and Joan Planells (Alaica 2013). The results showed that both populations had a mixed diet dominated mostly by terrestrial resources although they differ in the degree of marine/aquatic consumption, being higher in Joan Planells in comparison to Vía Púnica 34. A change in the nutritional sources and dietary habits is suggested. Further research will allow a deeper understanding of these findings.

DISCUSSION

When developing the demographic profile of a population there are several limitations to bear in mind. Excavation protocols, the degree of preservation and cultural burial practices can determine the representativeness of the sample under study in relation to the population from which it originates (Marquez-Grant 2005).

This study aims to provide the demographic profile of two Roman cemetery populations from Eivissa from different chronologies; few skeletal features survived allowing for only a number of skeletons to be assessed for age and sex while stature estimation was possible for only five individuals.

The pelvis and skull are considered the most sexually dimorphic elements in the human skeleton (e.g. Duric et al. 2005, İşcan and Krogman 1986), and can provide a high level of accuracy in sex estimation (Brothwell 1981, Ubelaker 1989, Buikstra and Ubelaker 1994, Bass 1995, Byers 2005, Klepinger 2006). However variable inter- and intra-observer errors have been reported when using such methods (Duric et al. 2005, Walker 2008, Sutherland & Suchey 1991, Walrath et al. 2005). To make our estimates more reliable we used the pelvis alone to accurately sex the skeletons. Sex distribution for the two necropolises was very similar, although Vía Púnica 34 presented a higher number of unidentified individuals. The Vía Púnica 34 sex distribution is about 5% more females than males whilst the female rate for Joan Planells is higher than the male rate by 10%. Other samples from eastern Spain and from similar chronologies have shown different sex distributions with a higher percentage of females (Jordana et al. 2006).

Comparing the known age distributions of the two populations it is found that Vía Púnica 34 comprised 90% adults and 10% sub-adults whilst Joan Planells presented 84% adults

and 16% sub-adults. 65% of the adults in Vía Púnica 34 were aged between 17 to 25 years old while in Joan Planells 42% of the adults were aged between 25 to 45 years old indicating a higher prevalence of older adults than in Vía Púnica 34. The predominance of adults under 45 years old have been shown before for Spanish and Ibiza populations (Langstaff 2010; Cashmore & Zakrzewski 2007). Among the sub-adults group, it is interesting to note that the juveniles from Joan Planells ranged from 0 to 14 years old while in Vía Púnica individuals aged from 0-2 years old were not found. A Roman sample from Barcelona shows a completely different age distribution having 50% adults and 50% of sub-adults indicating high infant mortality (Jordana et al. 2006). For our samples, the possibility of better infant health or an alternative place of burial for infants could be suggested. Whilst taking into account the differences in sample size between the populations, a comparison between these two Roman populations with other Islamic samples from Ibiza can be made. A variation in the number of adults and sub-adults is found in Can Fonoll and Avenida de España samples, with these Islamic populations having a much higher proportion of sub-adults than the Roman samples (Valli 2012, Langstaff 2010, Cashmore & Zakrzewski 2009, Pomeroy & Zakrzewski 2009).

The underrepresentation of specific age groups such as infants or elderly in our samples could be explained by the fact that the rate of degradation of these individuals is increased due to the chemical composition and the bone mass of their skeletal structures (Rost 2011, Walker 1995) in comparison with middle aged adults. The young age of both populations could be representative or could indicate an issue with the aging standards used. It has to be taken into consideration that some of the standard techniques used for aging these populations present some technical issues; for instance, it is known that variability in the rate of suture closure within and between individuals increases the inaccuracy of the method (Buikstra and Ubelaker, 1994; Kerley, 1970). As mentioned previously, this pattern of underrepresentation has been seen in other Ibizan populations so is not unusual. Regarding dental attrition, it could be accurately observed on the specimens but whether this particular population reflects the associated age ranges given by Brothwell (1981) is unknown and unlikely given the assumed dietary variation of the Ibizan population in comparison to the UK population on which it was based. However, these standards are commonly used in mainland Spain and the studies which have been carried out with them attest to their accuracy and have shown them to be a good estimator (Márquez-Grant 2005). Further study combining the dental development ages and the dental attrition could produce a more reliable age indicator.

Assessment of pathological conditions on skeletal elements can allow archaeologists to gain an insight on a population life history and complement the information inferred from the archaeological evidence. Poor preservation often introduces important biases in the interpretation of the findings but one cannot disregard the biological information on health status that is offered by the skeletal material. Results indicated that the evidence of pathologies and their frequency on the individuals from both populations were not high. Degenerative disease and Schmorl's nodes were found in higher frequencies in both groups whilst the lowest frequencies were observed for metabolic disease in Vía Púnica 34 and the category “other” in Joan Planells.

The observed pathologies found in these populations are consistent with the ones reported for other archaeological populations of this period and area.

The osteological data obtained through the anthropological analysis of these two necropolises from Ibiza have been constructed in order to obtain biological information of the Roman and Early Christian populations in the island. Age and sex demographics have been established, stable isotopic analysis of diet undertaken, non-metrical skeletal traits analysed, as well as stature estimation and the recording of pathology rates. Due to the nature of an archaeological assemblage, the taphonomical and sociocultural backgrounds need to be taken into consideration when interpreting the evidences regarding the collected data (Sullivan, 2004).

Our data IS only a small piece of the osteological populations encountered upon the island and further research is needed in order to understand secular trends and biological variability between regions, time periods and populations from Ibiza and from Spain.

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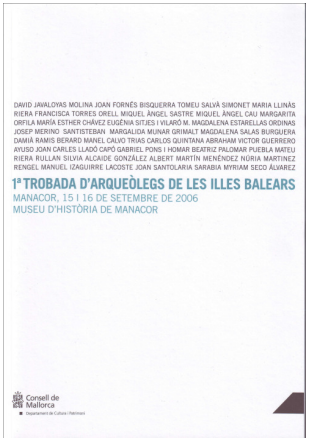

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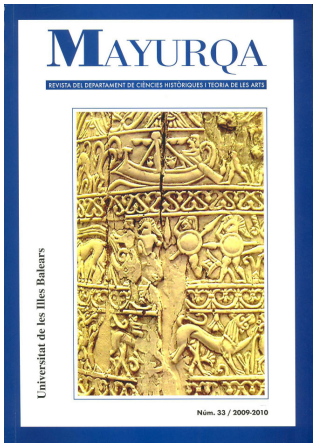

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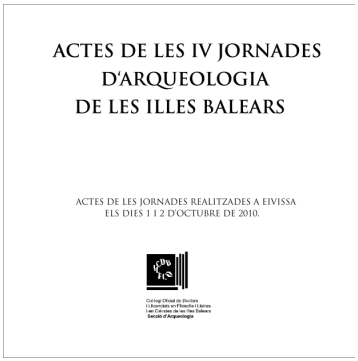

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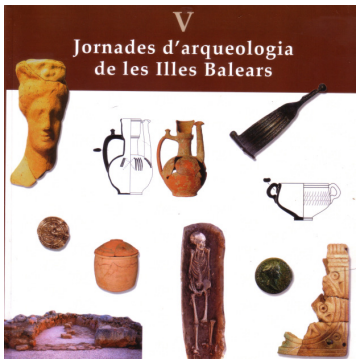

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